



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,164	02/26/2004	Andrew Jay Bean	3638-115 (AMK)	9134
23117	7590	04/29/2009	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			CHIN SHUE, ALVIN C	
ART UNIT	PAPER NUMBER			
	3634			
MAIL DATE	DELIVERY MODE			
04/29/2009	PAPER			

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/786,164

Filing Date: February 26, 2004

Appellant(s): BEAN ET AL.

---

Attorney Kagen  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 1/21/09 appealing from the Office action mailed 7/17/08.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

#### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

#### **(8) Evidence Relied Upon**

5,257,177	Bach et al.	10-1993
2003/0173151	Bodtke et al.	9-2003
4179010	Ashworth	12-1979
5390104	Fulton	2-1995

#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims: The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bach et al in view of Bodtke. Bach teaches the claimed method, but although

showing at 2 and 3 (fig.1) lifts having a plurality of booms is silent on same, thus the claimed difference being a work equipment having a pivotally attached main boom. Bodtke teaches a work equipment (at 206) connected to a tower boom by a pivotally attached main boom (201 or 601), Bodtke at 662, 661 teaches the use of sensing means position at a tower boom and between the tower and main boom, respectively, as set forth in claims 18 and 21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bach to comprise a work equipment with a main boom and sensing means located, as taught by Bodtke, to enable enhance positioning of a work equipment and sense the positioning of the booms, respectively. To teach his path control arrangement for the nose of his boom to follow a predetermined path, as set forth in claims 3-5, 8, 12-14 and 16 would have been an obvious mechanical expediency in view of the capability and function of his control arrangement with memory means. The examiner TAKES OFFICIAL NOTICE that the use of inclinometers and rotation sensors on booms to sense the position of the booms is a conventional practice. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an inclinometer and a rotation sensor in place of the sensors, as taught by Bodtke, by the substituted use of one known equivalent element for another.

Claims 1-17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bach et al in view of Ashworth. Bach teaches the claimed method including a switch 28, but although showing at 2 and 3 lifts having a plurality of booms is silent on same, thus the claimed difference being a work equipment having a pivotally attached main boom. Ashworth teaches a work equipment connected to a tower boom by a pivotally attached main boom at 19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bach to comprise a work equipment with a main boom, as taught by Ashworth, to enable enhance positioning of a work equipment. To teach his path control arrangement for the nose of his boom to follow a predetermined path, as set forth in claims 3-5, 8, 12-14 and 16 would have been an obvious mechanical expediency in view of the capability and function of his control arrangement with memory means.

Claims 2,9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bach et al and either Bodtke or Ashworth, as applied to claims 1,6 and 10 as applied above, and further in view of Fulton, as applied to claim 17 teaches a "Go To" switch 36. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of Bach with a "Go To" switch, as taught by Fulton, to activate the predetermined path of his boom.

### **(10) Response to Argument**

Appellant argues that Bach does not have a tower boom; the examiner disagrees, as Bach in fig.2 shows a tower boom at 8 pivotally coupled to a vehicle at 7. Appellant further argues that Bach provides a path control arrangement that maintains a desired path of movement for work equipment but his nose pin does not follow a predetermined path. The examiner notes that to maintain a desired predetermined path of the work equipment attached at the nose pin (tip/end) of his tower boom 8 (note fig. 2), the nose pin would follow a predetermined path itself. Appellant further argues that Bath does not teach that the path of the nose pin of the tower varies based on the angel of the main boom. The examiner notes that while Bath does not teach a main boom the modification of Bath with either Bodtke or Ashworth, would have a main boom attached to his tower boom nose pin, it is further noted by the examiner that Bath's method of control and his control system is with respect to his tower boom, and with a main boom as modified, his control system and path of his tower boom would also depend on the position of the main boom that position the work equipment. Attention is brought to column 3, lines 25-56; column 5, line 61 - column 6, line 26, where Bath states that not only the drive units for the length and angle (of the tower boom 8) is monitored but also the drive unit (positioning device of the work unit, wherein in

the modification the main boom would constitute the positioning device of the work equipment) is monitored. Appellant also stated that Bach does not teach simultaneous pivoting and telescoping of his tower boom. Attention is brought to column 2, lines 50,51 teaching his drive units for angle and length can be operated simultaneously. Appellant argues that neither Bodtke nor Ashworth correct the deficiencies argued by Appellant, it is noted that both Bodtke and Ashworth is used to teach main booms as work equipment positioning devices. With respect to claims 2, 9 and 11, Appellant argues that no reference teaches the raising and lowering of the tower boom is controlled by a single switch. The examiner notes that in column 8, line 25, column 12, line 52-57 and column 13, line 24-27, Bach teaches "A" switch 28 is in one position for movement of the equipment (raising and lowering of the tower boom) and in another position when the equipment is not being moved. Also in the modification with Fulton, Fulton teaches a Go To bin mode switch 36, which is used to operate his boom (raising and lowering) to move a platform/work equipment to predetermined sequence of positions. With respect to claim 8, note both Bach and Bodtke (main boom) teach the controlling of the angle of their booms with respect to gravity.. With respect to claim 21 and inclinometer and rotation sensors, note the examiner TAKES OFFICIAL NOTICE

that such are conventional. Which Appellant did not dispute. Bach further teaches the use of inclinometers for his sensor.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Alvin C. Chin-Shue/

Primary Examiner, Art Unit 3634

Conferees:

Marc Jimenez: /MJ/

Blair Johnson:/B. M. J./

Primary Examiner, Art Unit 3634

Alvin Chin-Shue: /A. C. C./